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U.S. Environmental Protection Agency  
NPDES/ Wetlands Review Section (6WD-PN)  
1201 Elm Street, Suite 500  
Dallas, Texas 75270

November 15, 2019  
31016-LMJ-19-087

Subject: Proposed NPDES Permit No. TX0092827, U.S. DOE SPR Big Hill Oil Storage

Fluor Federal Petroleum Operations, LLC (FFPO), the management and operations contractor for the Strategic Petroleum Reserve (SPR), with concurrence from the U.S. Department of Energy (owner and permittee) submits this letter conveying written comments for the above subject proposed permit in accordance with 40 CFR 124.10.

1. From the Statement of Basis:

Page 4 of 29, the asterisk indicates, "State Water Standard applies to outfall 001 because the discharge occurs within nine nautical miles (10.36 miles) in State waters, the Gulf of Mexico."

Pages 12-13 of 29, states "Wastewater discharges from outfalls 001, 002, 008 & 009 flow into the Gulf of Mexico, Segment 2501, and the Intracoastal Waterway Tidal of the Neches-Trinity Coastal Basin in Water Body Segment No. 0702, which has Texas WQS of 6.5-9.0 s.u. As a result, pH for outfalls 001, 002, 008, and 009 shall be limited to 6.5-9.8 s.u., the criteria listed for Segments 2501 and 0702.

1. Discussion:

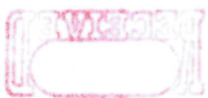
The Big Hill outfall 001 is located in the Gulf of Mexico in open waters offshore. Because of this distant offshore location, outfall 001 is sampled from a sampling port onsite. This location is a safe place to obtain the necessary samples for permitting that would represent the effluent stream when discharging.

From this location, the effluent brine is pumped more than five miles through piping before the first diffuser port is reached offshore at a depth exceeding 30-feet to begin diffusion in a permit authorized mixing zone. A mixing zone is by definition "is a limited area or volume of water where initial dilution of discharge takes place and where certain numeric water quality criteria may be exceeded. The CWA does not require that all criteria be met at the exact point where pollutants are discharged into a receiving water prior to the mixing of such pollutants with the receiving water."

The receiving stream is the open ocean, and open ocean water is typically characterized by an ambient and basic pH of 8.2 s.u., with a large buffering capacity. Samples from the vicinity of the nearby Big Hill diffuser location in a 1996 study confirm an 8.1 s.u. value when taken and then an 8.2 s.u. value when measured in the laboratory onshore. The permitted mixing zone is the buffering agent for any low pH effluent that may be measured at the onshore sampling port.

According to the document "Texas Surface Water Quality Standards," published on EPA's website (updated August 13, 2019), "EPA has not approved the definition of "surface water in the state" in the TX WQS, which includes an area out 10.36 miles into the Gulf of Mexico by reference to §26.001 of the Texas Water Code. Under the CWA, Texas does not have jurisdiction to establish water quality standards more

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than three nautical miles from the coast but does not extend past that point. Beyond three miles, EPA retains authority for CWA purposes.”

The Gulf of Mexico, Segment 2501, is identified by TCEQ as a water body with the following designated uses: primary contact recreation, exceptional aquatic life, and oyster water. The diffuser section is located beyond the three nautical miles (nm) physical limit described (3.6 nm) and is permitted to work as a regulatory mixing zone to at least a 100-meter boundary. The location of the diffuser being beyond 3.6 nm miles from shore would limit regular swimming within the mixing zone, and the diffuser section does not breach the surface when discharges occur. Additionally, the discharges are intermittent, allowing fish to freely swim away from the location when the diffuser is working. This toxic criterion is addressed by the routine WET testing.

Rule 307.4, General Criteria, governing the Texas Water Quality Standards, paragraph (m) regarding pH beyond those classified segments approved in the Implementation Plan, states that: “consistent with 307.1 of this title, pH levels in all surface waters in the state must be maintained so as to not interfere with the reasonable use of such waters.” DOE wishes to state that a pH below 6.5 temporarily occurring during an intermittent discharge within a permitted submerged mixing zone more than three nautical miles offshore in the Gulf of Mexico should not interfere with the reasonable use of the waters.

The DOE is requesting that for the above-mentioned reasoning, the historic limitation range for pH of 6.0 to 9.0, as observed at the onshore measuring point, be allowed to continue with this permit renewal.

2. From Statement of Basis:

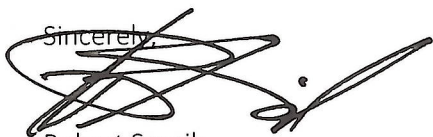
Page 5 of 29, For outfall 004, it is stated that the Big Hill site does not chlorinate their sewage treatment plant (STP).

2. Clarification:

The DOE Big Hill site does chlorinate their STP and believes that “not” was an inadvertent error.

Please contact LaDonna Jeanmarie of FFPO at 504-734-4557 should you desire additional information. I also respectfully request that any correspondence directed to Fluor Federal Petroleum Operations concerning this letter include a courtesy copy directed to the attention of Mr. Paul S. Oosterling, Project Manager, Strategic Petroleum Reserve, U.S. Department of Energy, Project Management Office, 900 Commerce Road East, New Orleans, LA 70123. Thank You.

Sincerely,



Robert Sevcik  
Director Environment & Sustainability  
Fluor Federal Petroleum Operations

CC: W. Woods, DOE/FE-4441

Concurrence by SPRPMO



Joseph Cayb  
ESH Division Director

Strategic Petroleum Reserve  
Project Management Office (SPRPMO)

